

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	0	("generat\$4with(XSL\$2adjscript").PN.	US-PGPUB; USPAT	OR	OFF	2007/04/23 11:09
L3	19	generat\$4 with (XSL\$2 adj script)	US-PGPUB; USPAT	OR	OFF	2007/04/23 11:10
L4	3	l3 and @ad<"20011119"	US-PGPUB; USPAT	OR	OFF	2007/04/23 11:10
S1	1	("20030167445").PN.	US-PGPUB; USPAT	OR	OFF	2007/04/23 11:08
S2	3189	(715/513).ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 14:22
S3	50	("20030167445" "6845380" "6487566" "7165216" "20050086584" "20050154979" "20070061713" "7069504" "7076729" "7159185" "20030212698" "20040060004" "20030191803" "20040205592" "20060101058" "20030167254" "7159224" "20030204645" "20050044197" "20050138634" "20040083219" "20050198617" "20030065623" "20060265689" "6604099" "6654734" "7013311" "7072896" "7080094" "7114123" "7134072" "7181747" "20020111964" "20020147745" "20020169788" "20030069907" "20030093574" "20030149934" "20030154444" "20040083221" "20040268239" "20040268304" "20050055336" "20050114314" "20050256893" "20060167929" "20060173865" "20060277252" "20050050044" "7131066" ).pn.	US-PGPUB; USPAT	OR	OFF	2007/04/18 15:02
S4	1	("6874141").PN.	US-PGPUB; USPAT	OR	OFF	2007/04/18 14:17
S5	514	(715/523).ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 14:35
S6	1494	(715/501.1).ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 14:22
S7	826	generat\$4 with xsl\$1	US-PGPUB; USPAT	OR	OFF	2007/04/18 15:03
S8	286	(schema with source) and (schema with target)	US-PGPUB; USPAT	OR	OFF	2007/04/18 15:03
S9	47	S7 and S8	US-PGPUB; USPAT	OR	OFF	2007/04/18 15:04

governmental Organizations in Belarus" published by WIDM in 2001. ...  
widm.iatp.by/widm/index.phtml?page=7510&l=e - 28k - [Cached](#) - [Similar pages](#)

### Hong Su

"Automating the translation of XML documents" 3rd international workshop on web information and data management (WIDM'01), Atlanta, Georgia, Nov. 2001 (.ps) ...  
www.cs.wpi.edu/~suhong - 14k - [Cached](#) - [Similar pages](#)

Result Page: [Previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [Next](#)

---

[Search within results](#) | [Language Tools](#) | [Search Tips](#)

---

[Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)

©2007 Google

[Sign in](#)[Web](#) [Images](#) [Video](#) [News](#) [Maps](#) [more »](#)

widm 2001 automating transformations

Search

[Advanced Search](#)  
[Preferences](#)**Web**Results 1 - 10 of about 478 for widm 2001 automating transformations. (0.07 seconds)Scholarly articles for widm 2001 automating transformations[Automating the transformation of XML documents](#) - Su - Cited by 41[Translating Access Authorizations for Transformed XML ...](#) - Chatvichienchai - Cited by 4[Converting business documents: a classification of ...](#) - Wustner - Cited by 23**WIDM 2001**

@proceedings{DBLP:conf/widm/2001, editor = {Roger H. L. Chiang and Ee-Peng Lim}, ...

[Automating the transformation of XML documents](#). 68-75 ...[www.informatik.uni-trier.de/~ley/db/conf/widm/widm2001.html](http://www.informatik.uni-trier.de/~ley/db/conf/widm/widm2001.html) - 9k -[Cached](#) - [Similar pages](#)[DBLP: Elke A. Rundensteiner](#)114 · EE · Hong Su, Harumi A. Kuno, Elke A. Rundensteiner: [Automating the](#)[transformation of XML documents](#). **WIDM 2001**: 68-75 ...[www.informatik.uni-trier.de/~ley/db/indices/a-tree/r/Rundensteiner:Elke\\_A.html](http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/r/Rundensteiner:Elke_A.html) - 152k -[Cached](#) - [Similar pages](#)[ [More results from www.informatik.uni-trier.de](#) ]**: WIDM '01, Automating the transformation of ...**[Automating the transformation of XML documents](#). Full text, pdf format Pdf (523 KB) ...WSCL 1.0. <http://www.e-speak.hp.com/media/wscl/51601.pdf>, **2001**. ...[portal.acm.org/citation.cfm?id=502932.502946&](http://portal.acm.org/citation.cfm?id=502932.502946&coll=dl&type=series&idx=502932&part...)[coll=dl&type=series&idx=502932&part...](#) - [Similar pages](#)[\[PDF\] Report on the Third International Workshop on Web Information and ...](#)

File Format: PDF/Adobe Acrobat

Like its predecessors, **WIDM'2001** was held in conjunction ... [Automating the](#)[Transformation of XML Documents](#) by Suet al. focused on the transfor- ...[portal.acm.org/ft\\_gateway.cfm?id=511150&type=pdf](http://portal.acm.org/ft_gateway.cfm?id=511150&type=pdf) - [Similar pages](#)[ [More results from portal.acm.org](#) ]**DBLife: Automating the transformation of XML documents**[Automating the transformation of XML documents](#). Mentions 1 - 1 out of 1. Monday Jul17, 2006 ... **WIDM 2001**. 1 total mentions occurring in 1 pages. ...[dblife.cs.wisc.edu/search.cgi?entity=entity-19317](http://dblife.cs.wisc.edu/search.cgi?entity=entity-19317) - 5k - [Cached](#) - [Similar pages](#)[Co-Authors of Harumi A. Kuno](#)**2001, 12, Automating the transformation of XML documents**. Hong Su, Harumi A. Kuno,Elke A. Rundensteiner. **WIDM 2001**, 68-75. Download BibTex ...[dblife.cs.wisc.edu/dblp.cgi?type=coauthorship&entity=entity-13026](http://dblife.cs.wisc.edu/dblp.cgi?type=coauthorship&entity=entity-13026) - 23k -[Cached](#) - [Similar pages](#)[ [More results from dblife.cs.wisc.edu](#) ]**[PDF] LNCS 3306 - XML Schema Matching Based on Incremental Ontology Update**

File Format: PDF/Adobe Acrobat

An [automated transformation of XML documents](#) has therefore become an importantissue. ... (**WIDM**) (**2001**) 68-75. 15. Mong Li Lee, Wynne Hsu, LiangHuai Yang, ...[www.springerlink.com/index/L3YWN7TMEMLNURG5.pdf](http://www.springerlink.com/index/L3YWN7TMEMLNURG5.pdf) - [Similar pages](#)[Hong Su](#)

"Automating the translation of XML documents" 3rd international workshop on web information and data management (WIDM'01), Atlanta, Georgia, Nov. 2001 (.ps) ...  
www.cs.wpi.edu/~suhong - 14k - [Cached](#) - [Similar pages](#)

*wpi document*

#### Xtra Projects

Automating the transformation of XML documents, (.ps) · (.pdf) Workshop on Web Information and Data Management (WIDM'01), Atlanta, GA, USA, Nov. 9, 2001. ...  
davis.wpi.edu/~dsrg/xtra/index.html - 13k - [Cached](#) - [Similar pages](#)

[ps] [Information Sharing for the Semantic Web — a Schema Transformation ...](#)

File Format: Adobe PostScript - [View as Text](#)

ER'01, pages 117–132, 2001. 20. H. Su, H. Kuno, and E. A. Rudensteiner. Automating the transformation of XML documents. In Proc. WIDM'01, pages 68–75, ...

www.dcs.bbk.ac.uk/~lucas/pubs/ZPdisweb06.ps - [Similar pages](#)

Result Page:    1   [2](#)   [3](#)   [4](#)   [5](#)   [6](#)   [7](#)   [8](#)   [9](#)   [10](#)    [Next](#)

Free! Get the Google Toolbar. [Download Now](#) - [About Toolbar](#)



widm 2001 automating transformatic    [Search](#)

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Dissatisfied? Help us improve](#)

[Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)


©2007 Google

SEARCH  
NOTES

WORCESTER POLYTECHNIC INSTITUTE

*Computer Science Department**(last updated Sep 11, 2001)*

# Xtra: Automating the Reconciliation of XML Documents

 [Xtra System Overview](#) [Research Issues](#) [Our Approach](#) [Project Members](#) [Sponsors](#) [Publications](#) [System Download](#) [Xtra Overview](#)

The advent of web services that use XML-based message exchange has spurred many efforts that address issues related to inter-enterprise service electronic commerce interactions. Currently emerging standards and technologies enable enterprise to describe and advertise their own Web Services and to discover and determine how to interact with services fronted by other businesses. However, these technologies do not address the problem of how to reconcile structural differences between similar types of documents supported by different enterprises. Transformations between such documents must thus be created manually on a case-by-case basis. In this paper, we explore the problem of how to automate the transformation of XML E-business documents. We develop an integrated solution that automates as much as possible all steps of the document transformation process. One, we propose a set of schema transformation operations that establish semantic relationships between two XML document schemas. Two, we define a model that allows us to compare the cost of performing these operations. Three, we introduce an algorithm that discovers an efficient sequence of operations for transforming a source document schema into a target document schema based on our cost model. The operation sequence then

SEAN  
NOTES

is used to generate an equivalent XSLT transformation script. Experimental results indicate that our algorithm can satisfactorily discover acceptable transformations.

### ● *Research Issues*

---

**Issue 1 -- Discovery of the semantic relationship between two XML schemas.**

---

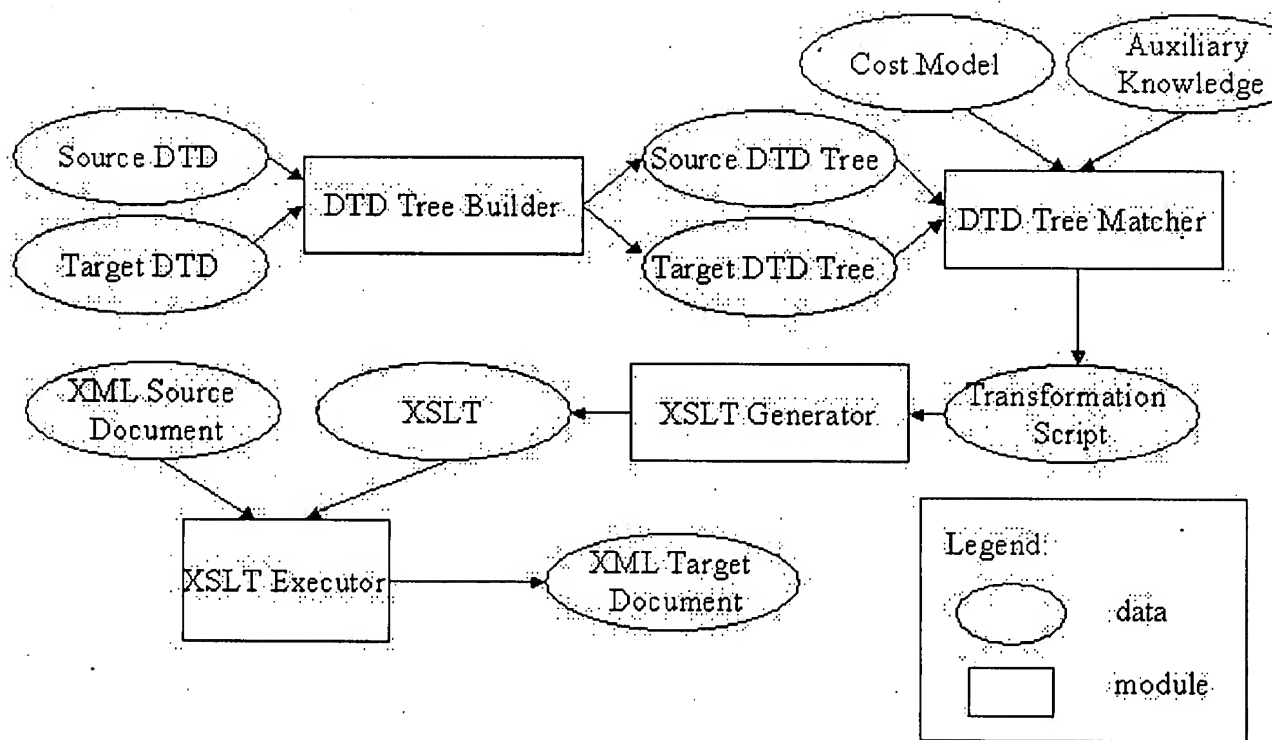
---

**Issue 2 -- Translation of XML documents in the source format into target format**

---

### ● *Our Approach*

Since DTDs are currently the dominant industry standard, we address the problem of how to transform a document conforming to a source DTD so that it will conform to a target DTD. Our approach could easily be adapted to XML Schema. Given a source and a target DTD, we first model each DTD as a tree. This allows us to express the problem as how to transform one DTD tree into another. To this end, we have defined a set of DTD transformation operations that establish the semantic relationships between two trees. We also define a cost model for choosing a sequence of transformation operations among multiple alternatives. We have developed an algorithm to discover a sequence of operations (i.e., transformation script) that transforms a source DTD tree into a target DTD tree. The discovery process is based on provided auxiliary information (e.g., synonym dictionary, domain ontology, etc.) and a cost model we define for choosing a transformation script among multiple alternatives. Lastly, we use the resulting transformation script to generate a eXtensible Stylesheet Language Transformations (XSLT) script. The XSLT script can then be applied to source XML documents to transform them into XML documents conforming to the target DTD. Figure 1 shows the architecture of our system.



## ◆ Project Members

### ◆ Advisor

Elke Rundensteiner

### ◆ Co-op Research Staff

Harumi A. Kuno (software research engineer in HP Palo Alto Labs)

### ◆ Graduate Students

Hong Su

## ◆ Sponsors

HP lab partial support of Hong Su from Sep. 2000 to Mar. 2001 in terms of a GrassRoot Breakthrough Grant.

SEARCH NOTES

## ● *Publications*

Hong Su, Harumi Kuno, and Elke Rundensteiner,  
Automating the transformation of XML documents, (.ps) ← REMOVED  
(.pdf) Workshop on Web Information and Data Management (WIDM'01), Atlanta, GA, USA, Nov. 9,  
2001.

Hong's Talk at WIDM'01 (.pdf) ← REMOVED

## ● *System Download*

coming soon



[Sign in](#)[Web](#) [Images](#) [Video](#) [News](#) [Maps](#) [more »](#)

widm 2001

Search

[Advanced Search](#)  
[Preferences](#)**Web**

Results 31 - 40 of about 70,100 for widm 2001 . (0.14 seconds)

**PC Memberships**

Tenth International Conference on Information and Knowledge Management, McLean, VA, USA, November 5 - 10, 2001. • **WIDM 2001**. Third International Workshop on ...  
[www.inf.uth.gr/~verykios/index\\_files/page0006.htm](http://www.inf.uth.gr/~verykios/index_files/page0006.htm) - 165k - [Cached](#) - [Similar pages](#)

[PDF] XML access control and e-commerce technologies for advanced ...

File Format: PDF/Adobe Acrobat

and Data Management (**WIDM 2001**), pp.68–75, Jul. 2001. Proceedings of the 12th International Conference on Informatics Research for Development of Knowledge ...  
[ieeexplore.ieee.org/iel5/9187/29138/01313415.pdf?arnumber=1313415](http://ieeexplore.ieee.org/iel5/9187/29138/01313415.pdf?arnumber=1313415) - [Similar pages](#)

**Web Mining: Research and Practice**

3rd ACM Workshop Web Information and Data Management (**WIDM 2001**), ACM Press, 2001, pp. 9–15. [26] M.-S. Chen, J.-S. Park, and P.S. Yu, "Efficient Data ...  
[csdl2.computer.org/.../dl/mags/cs/&toc=comp/mags/cs/2004/04/c4toc.xml&DOI=10.1109/MCSE.2004.23](http://csdl2.computer.org/.../dl/mags/cs/&toc=comp/mags/cs/2004/04/c4toc.xml&DOI=10.1109/MCSE.2004.23) - 31k - [Cached](#) - [Similar pages](#)

**IBM Research | | ubnambiar | Publications**

Third International Workshop on Web Information and Data Management (**WIDM**), Atlanta, Georgia, November 2001. (Acceptance rate: 26%) ...  
[domino.research.ibm.com/comm/research\\_people.nsf/pages/ubnambiar.pubs.html](http://domino.research.ibm.com/comm/research_people.nsf/pages/ubnambiar.pubs.html) - 22k - [Cached](#) - [Similar pages](#)

[PDF] Mining Coverage Statistics for Websource Selection in a MediatorFile Format: PDF/Adobe Acrobat - [View as HTML](#)

Web-based Data Integration, Coverage Statistics. £. Contact Author. Preliminary versions of this work have been presented at **WIDM 2001** [NKNV01] and CIKM ...  
[rakaposhi.eas.asu.edu/statminer-tr.pdf](http://rakaposhi.eas.asu.edu/statminer-tr.pdf) - [Similar pages](#)

[PDF] LNCS 3045 - Fuzzy Matching of User Profiles for a Banner Engine

File Format: PDF/Adobe Acrobat

Association Rule Discovery from Web Usage Data, **WIDM 2001**, Atlanta, 2001. 7. C. Morici, R. Niewiadomski: A framework for a personalized advertising on Web ...  
[www.springerlink.com/index/C4FY3R03CKG8Y8L3.pdf](http://www.springerlink.com/index/C4FY3R03CKG8Y8L3.pdf) - [Similar pages](#)

[PDF] Some Experiences on Large Scale Web Mining

File Format: PDF/Adobe Acrobat

on Web Information and Data Management (**WIDM**) 2001, pp. 103-112, 2001. 4. Y. Ohura, K. Takahashi, I. Pramudiono, and M. Kitsuregawa "Experiments on ...  
[www.springerlink.com/index/0M28YMCP9B4P8VJB.pdf](http://www.springerlink.com/index/0M28YMCP9B4P8VJB.pdf) - [Similar pages](#)  
[\[ More results from www.springerlink.com \]](#)

[PDF] Vita of Kirk Pruhs Department of Computer Science University of ...File Format: PDF/Adobe Acrobat - [View as HTML](#)

(**WIDM**), 2001. • Luca Becchetti, Stefano Leonardi, Alberto Marchetti–Spaccamela, Kirk Pruhs, "Online weighted. flow time and deadline scheduling", ...  
[www.cs.pitt.edu/~kirk/vita.pdf](http://www.cs.pitt.edu/~kirk/vita.pdf) - [Similar pages](#)

**Women's Independent Democratic Movement - Investigations**

Brief information about each foundation can be found in the reference book "Women's Non-